

FIG. 1
 (PRIOR ART)

P02080 "62198350

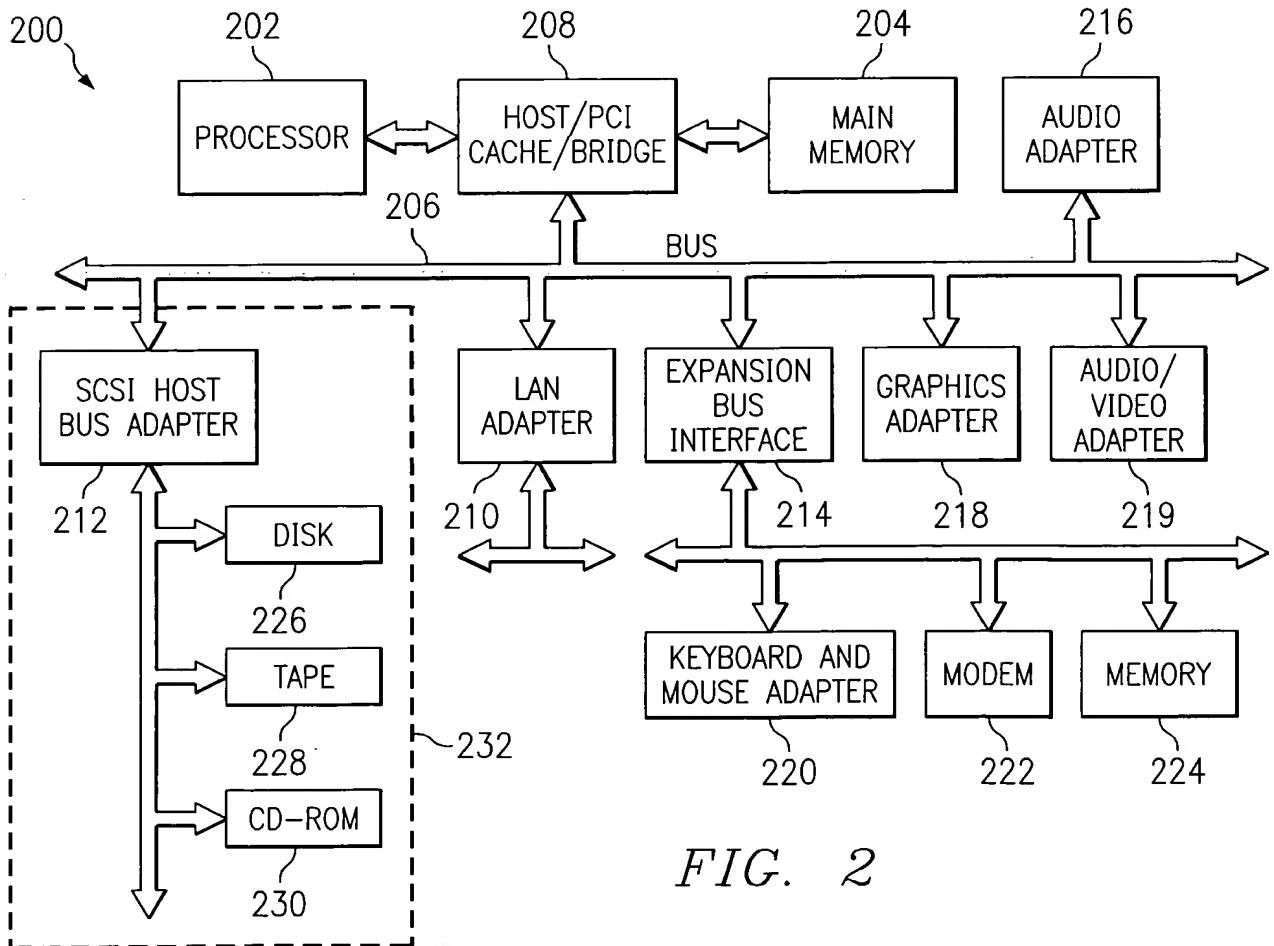


FIG. 2

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FIG. 3

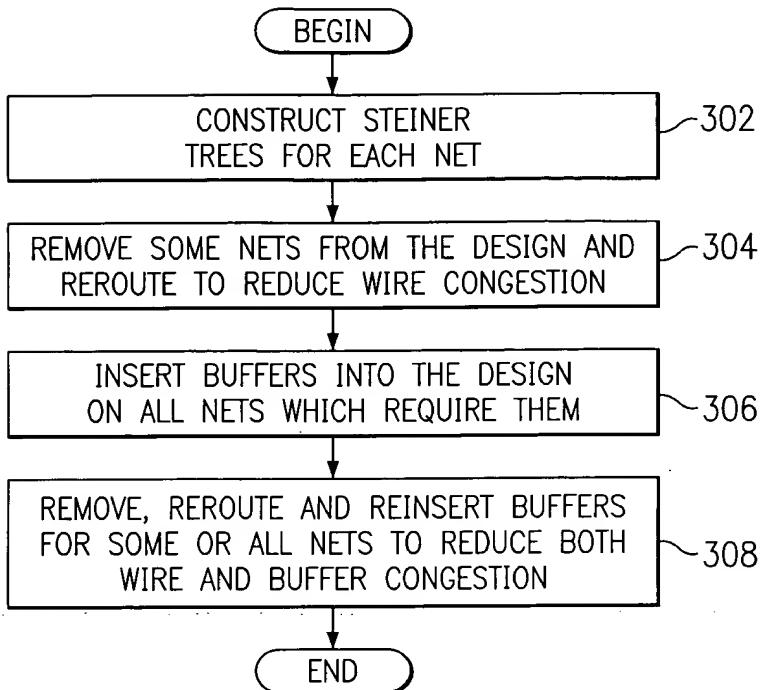


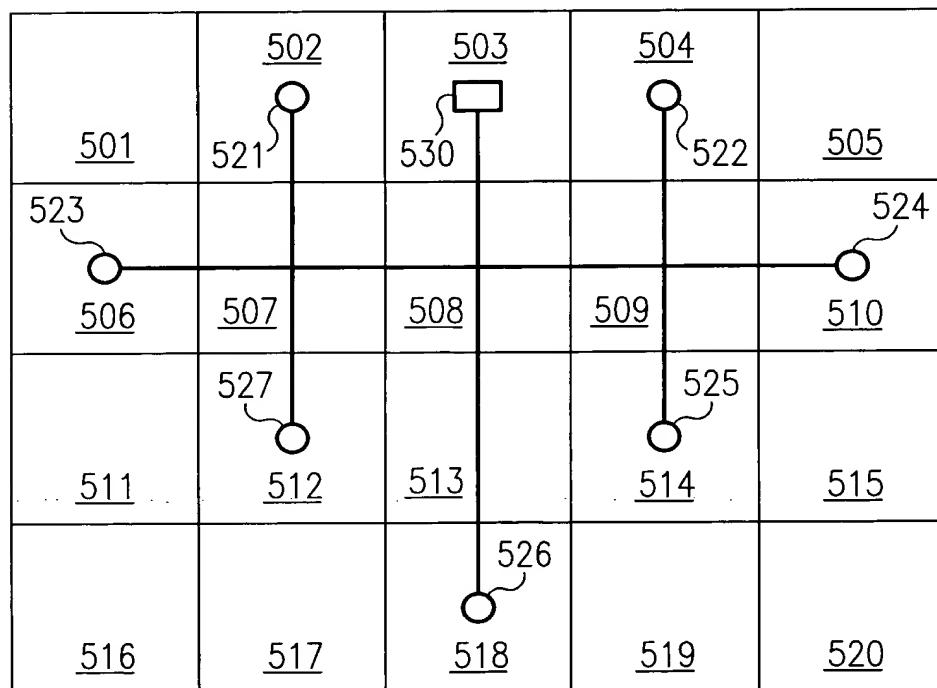
FIG. 4A

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		450			
<u>401</u>	<u>402</u>	403	<u>404</u>	<u>405</u>	<u>406</u>
<u>407</u>	<u>408</u>	<u>409</u>	<u>410</u>	<u>411</u>	<u>412</u>
<u>413</u>	<u>414</u>	<u>415</u>	<u>416</u>	<u>417</u>	<u>418</u>
<u>419</u>	<u>420</u>	<u>421</u>	<u>422</u>	<u>423</u>	<u>424</u>
<u>425</u>	<u>426</u>	<u>427</u>	<u>428</u>	<u>429</u>	<u>430</u>
<u>431</u>	<u>432</u>	<u>433</u>	<u>434</u>	<u>435</u>	<u>436</u>

FIG. 4B 3/8

0 <u>401</u>	0 <u>402</u>	6 <u>403</u>	4 <u>404</u>	1 <u>405</u>	2 <u>406</u>
2 <u>407</u>	2 <u>408</u>	4 <u>409</u>	3 <u>410</u>	3 <u>411</u>	6 <u>412</u>
2 <u>413</u>	8 <u>414</u>	2 <u>415</u>	0 <u>416</u>	5 <u>417</u>	0 <u>418</u>
2 <u>419</u>	2 <u>420</u>	3 <u>421</u>	3 <u>422</u>	2 <u>423</u>	0 <u>424</u>
0 <u>425</u>	0 <u>426</u>	1 <u>427</u>	0 <u>428</u>	0 <u>429</u>	1 <u>430</u>
0 <u>431</u>	0 <u>432</u>	1 <u>433</u>	2 <u>434</u>	1 <u>435</u>	0 <u>436</u>

FIG. 5



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FIG. 6

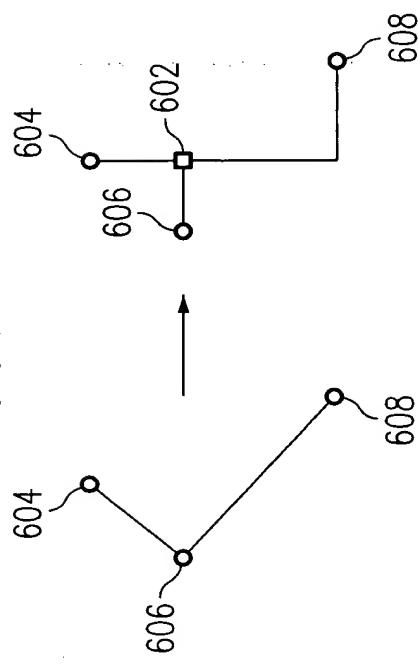


FIG. 8

1. SET $c_{t[j]} = 0$ FOR $1 \leq j < L_i$ AND SINK t. SET $v=t$
2. WHILE $v \neq s$ DO
 - FOR $j=1$ to $L_i - 1$ DO
 - SET $c_{par(v)[j]} = c_v[j-1]$
 - SET $c_{par(v)[0]} = q(par(v)) + \min\{c_v[j] \mid 0 \leq j < L_i\}$
 - SET $v = par(v)$
3. LET v BE SUCH THAT $par(v)=s$. RETURN $\min\{c_v[j] \mid 0 \leq j < L_i\}$

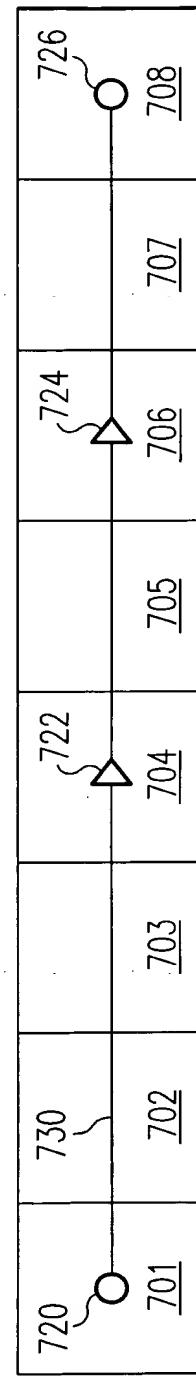
AUS920010118US1

Alpert et al.

Practical Methodology for Early Buffer and Wire Resource Allocation

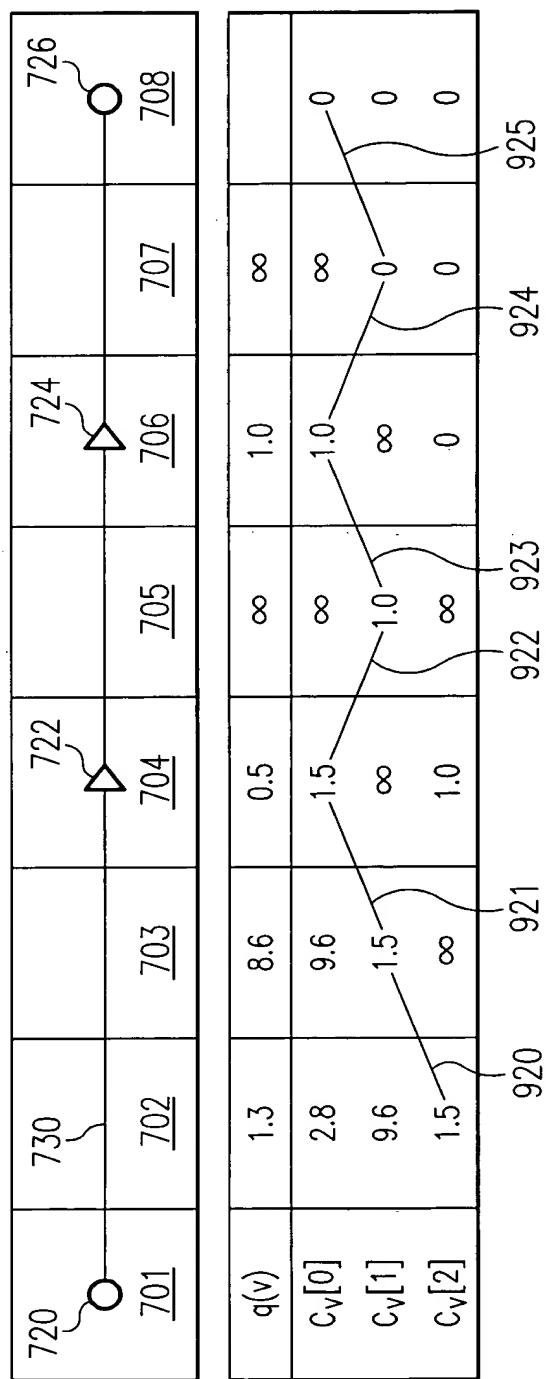
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FIG. 7



B(v)	8	5	12	3	5	0
b(v)	3	4	2	3	0	0
p(b)	2.5	3.6	2	0.8	4	5
q(v)	1.3	8.6	0.5	∞	1.0	∞

FIG. 9



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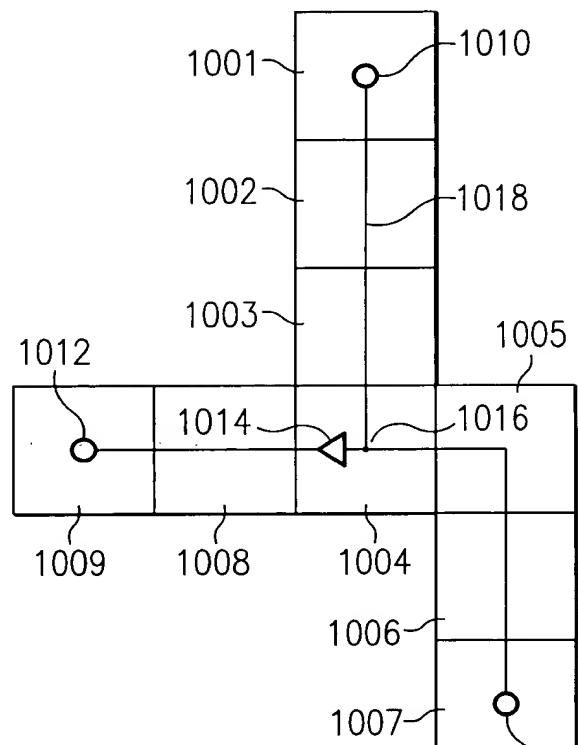
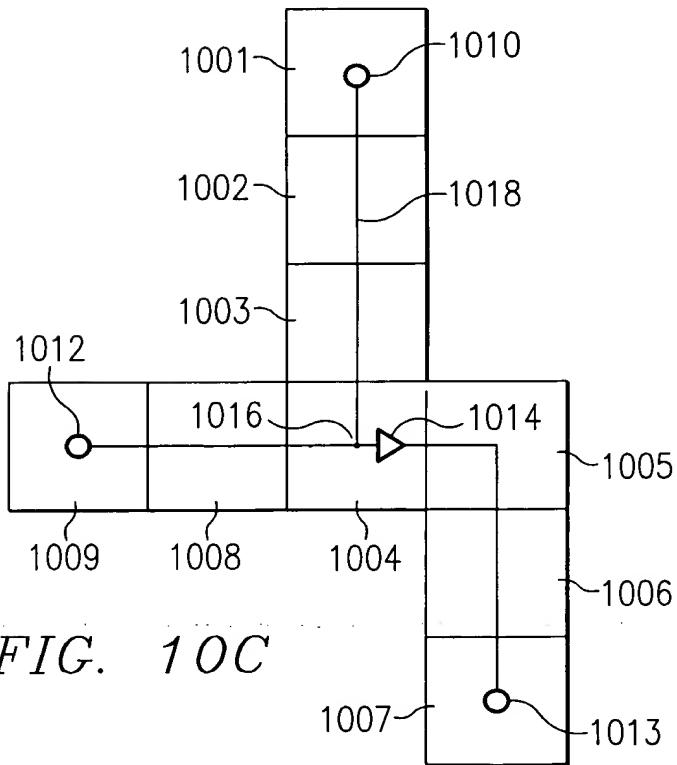
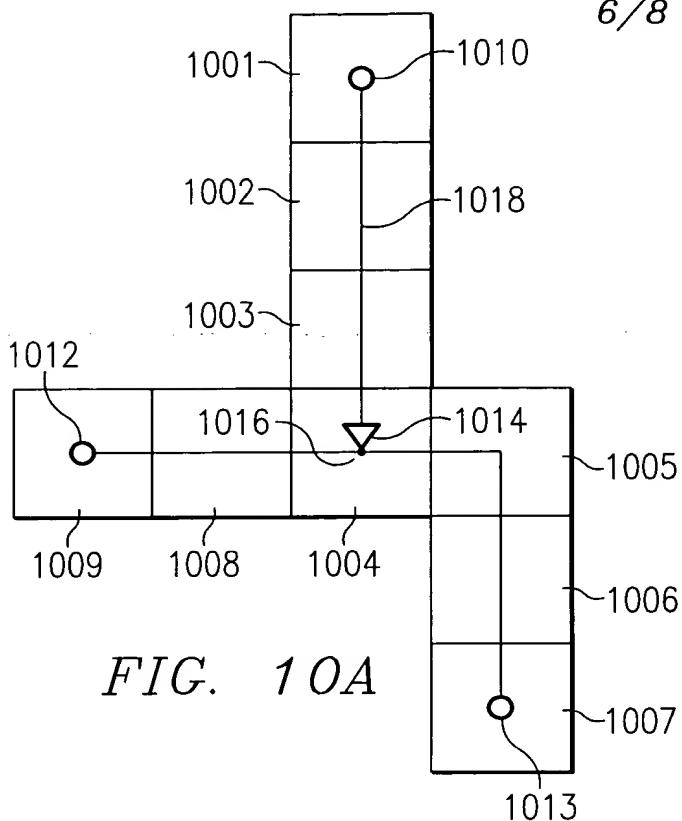


FIG. 11

1. PICK AN UNVISITED NODE v SUCH THAT ALL DESCENDANTS OF v HAVE BEEN VISITED
WHILE $v \neq s$ DO
 2. IF v IS A SINK THEN
SET $C_v[j] = 0$ FOR $1 \leq j < L_v$
 3. IF v HAS ONE CHILD $l(v)$ THEN
FOR $j=1$ TO $L_{l(v)} - 1$ DO
SET $C_v[j] = C_{l(v)}[j-1]$
SET $C_v[0] = q(v) + \min\{C_{l(v)}[j] \mid 0 \leq j < L_{l(v)}\}$
 4. IF v HAS TWO CHILDREN $l(v)$ AND $r(v)$ THEN
 - .1 FOR $j=2$ TO $L_v - 1$ DO
SET $C_v[j] = \min\{C_{l(v)}[j_l] + C_{r(v)}[j_r] \mid j_l + j_r + 2 = j\}$
 - .2 SET $C_v[0] = q(v) + \min\{C_{l(v)}[j_l] + C_{r(v)}[j_r] \mid j_l + j_r + 2 \leq L_v\}$
 - .3 SET $C_v[1] = \infty$
 - .4 FOR $j=1$ TO $L_v - 1$ DO
SET $C_v[j] = \min\{C_v[j], q(v) + C_{l(v)}[j-1], q(v) + C_{r(v)}[j-1]\}$
 5. MARK v AS VISITED
PICK AN UNVISITED NODE v SUCH THAT ALL DESCENDANTS OF v HAVE BEEN VISITED
 6. RETURN $\min\{C_s[j] \mid 0 \leq j < L_s\}$.

FIG. 12

